

Reliable Shiga toxin detection ...



... for early EHEC diagnostics!

Your molecular genetic test system for the detection of the Shiga toxin genes *stx1* and *stx2*, the intimin gene *eae* and the *ipaH* gene from cultures.



## Your benefits of using GenoType EHEC

- **Clear results:** GenoType EHEC allows the reliable differentiation of *Escherichia coli* and *Shigella* spp. and the discrimination between EHEC, EPEC and EIEC. Simultaneously, the important Shiga toxin (*stx1* and *stx2*), intimin (*eae*) and *ipaH* genes are detected.
- **Rapid results:** The results are available within five hours, thus ensuring a rapid EHEC detection.
- **User-friendly:** The test based on the DNA•STRIP technology can easily be integrated into your daily routine.
- **Cost-effective:** No expensive equipment is required, therefore allowing an economic implementation even in smaller laboratories.
- **CE-marked:** No need for elaborate validation studies.

### Facts

*Escherichia coli* is a bacterium commonly found in the gut of humans and warm-blooded animals. Most strains of *E. coli* are harmless. However, some of them, like enterohaemorrhagic *E. coli* (EHEC), enteropathogenic *E. coli* (EPEC) and enteroinvasive *E. coli* (EIEC) just like the closely related *Shigella* spp. are pathogenic to humans and can cause severe enteric diseases.

Especially EHEC leads to periodical infection outbreaks with clinical symptoms ranging from mild diarrhoea to haemolytic uremic syndrome (HUS). The latter may lead to life-threatening complications particularly in infants and the elderly. EHEC is characterised by a high virulence, which is probably promoted by the low infection dose of less than 100 pathogens. Therefore, early diagnostics of diarrhoea is mandatory in case of hospitalised children, outbreaks in nursing homes and other shared facilities in order to prevent transmission and to antagonise severe courses of the disease.

In bacterial cultures, EHEC does not differ phenotypically from apathogenic *E. coli*, rendering its microbiological identification extremely difficult. Therefore, the most important diagnostic criterion for detecting an EHEC infection is the identification of Shiga toxin, produced by the bacteria. Thus, the aim of laboratory diagnostics is the isolation of the pathogen and the detection of the toxin genes using molecular biological techniques.

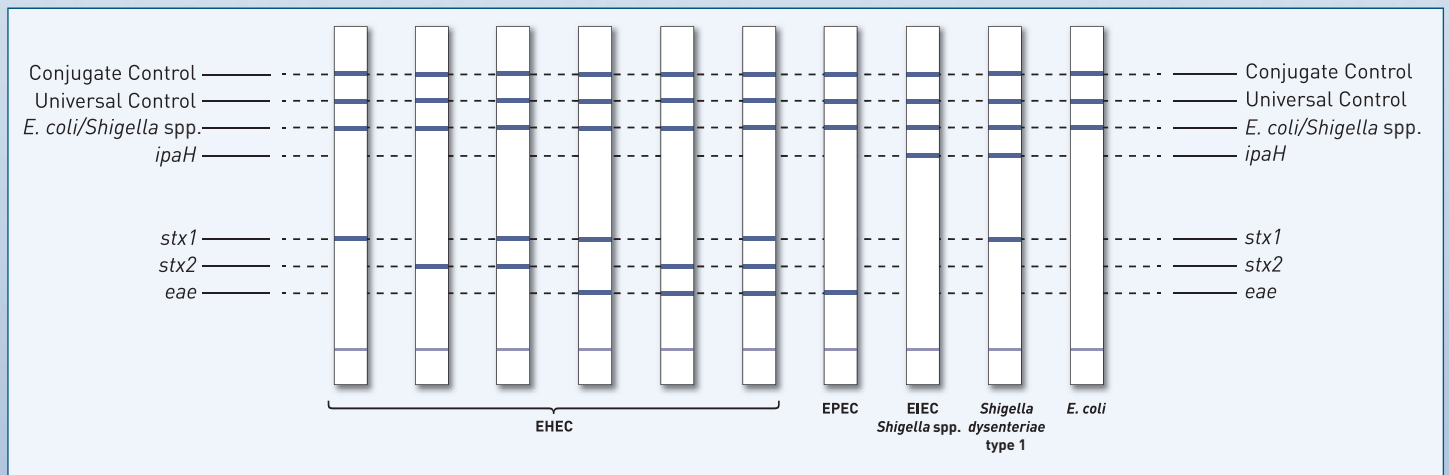
### Rapid and reliable EHEC diagnostics

Starting with cultured material, **GenoType EHEC** allows you to:

- differentiate between *E. coli* and *Shigella* spp.
- detect EHEC by analysis and differentiation of the Shiga toxin genes *stx1* and *stx2* as well as the intimin gene *eae*.
- discriminate between EHEC on the one hand, and *Shigella* and EIEC on the other hand by detecting the specific *ipaH* gene.

In contrast to conventional detection methods this information can reliably be obtained from one single test within approximately five hours.

### GenoType EHEC – Accurate and reliable results for your EHEC diagnostics!



For further information please contact Hain Lifescience or your local distributor.

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